

Organization of lossless progressive data on tape

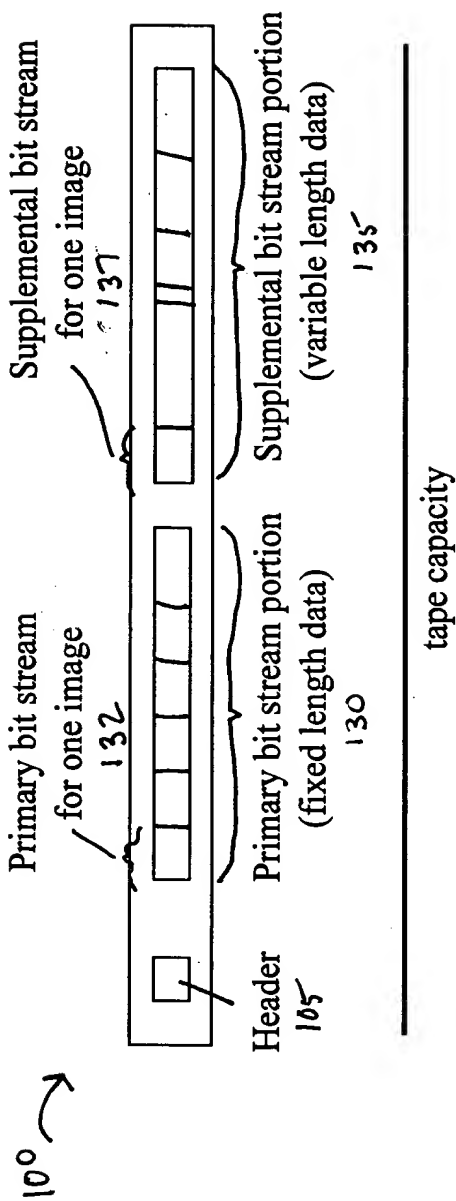


FIG. 1

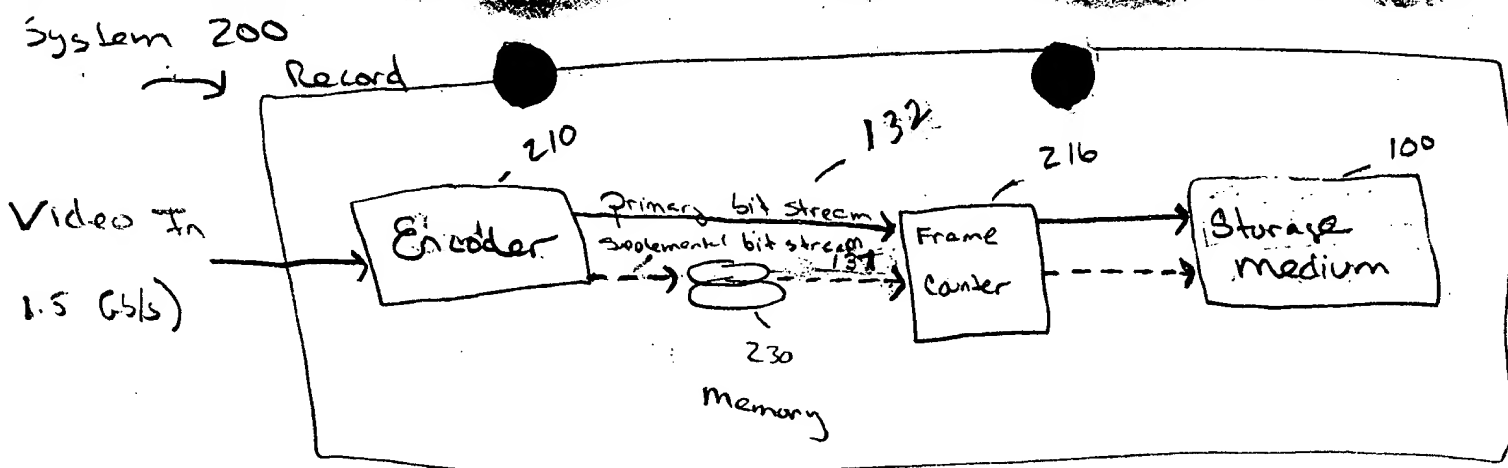


FIG. 2

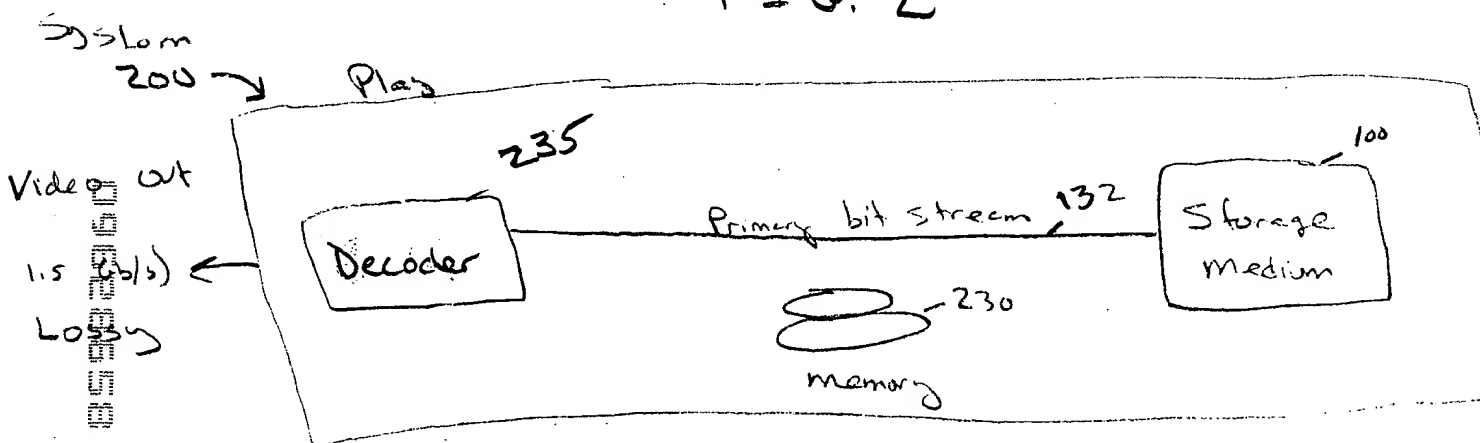


FIG. 3

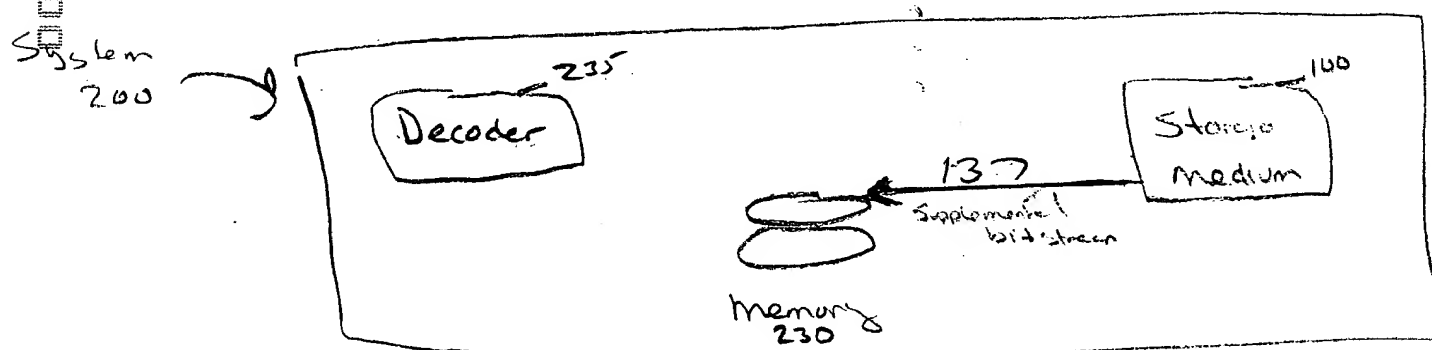


FIG. 4

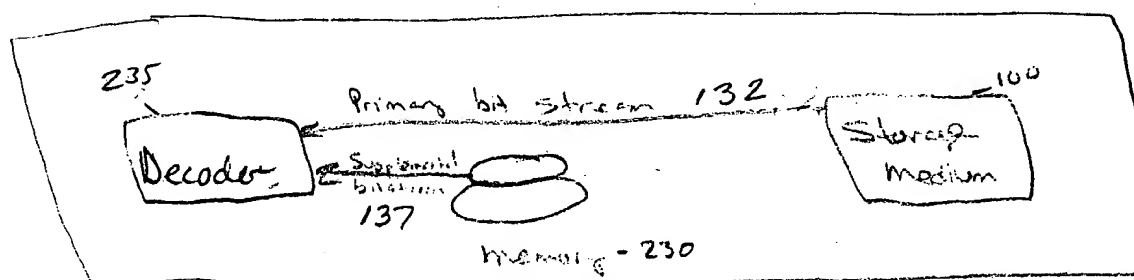


FIG. 5

008270" 85982960

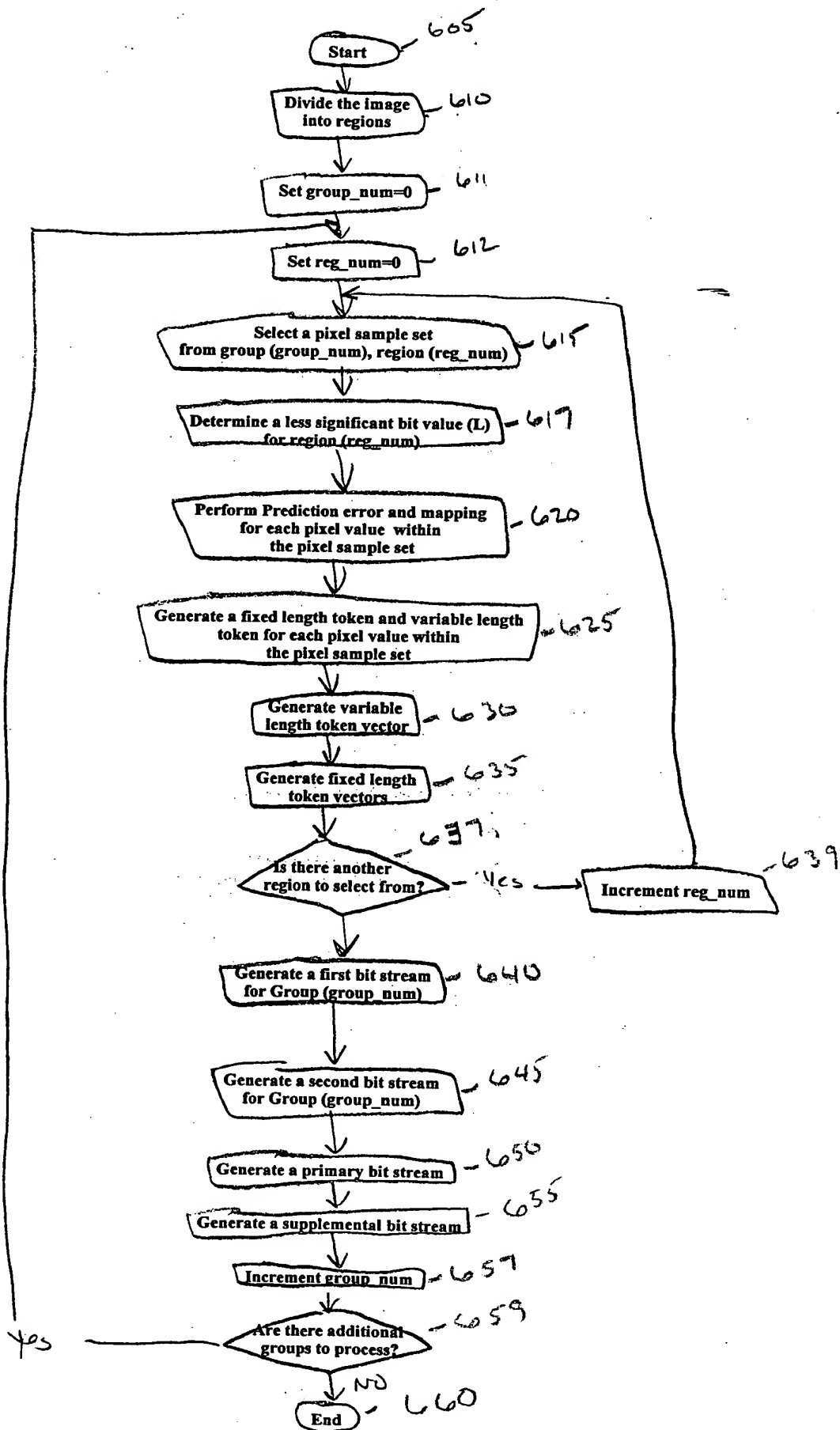


FIG. 6

Start 705

Calculate prediction error values 710
1) set $e(0)=P(0)$
2) starting with a pixel value $P(1)$
3) calculate the equation $e(i)=P(i-1)-P(i)$ for all pixels where i is the index of selected pixels and e = the prediction error
4) apply mapping to each prediction error

Define the less significant bits to be all the bits that are equal to or less than the less significant bit value (L) of prediction error $e(i)$ 720

Define the more significant bits to be the remaining bits of the prediction error 725

Set the fixed length token of the prediction error $e(i)$ equal to all the less significant bits 730

Apply entropy coding to the more significant bits of the prediction error and save the result as a variable length token. 735

End

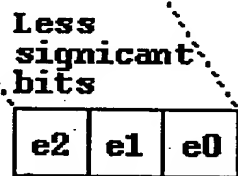
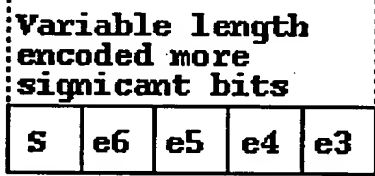
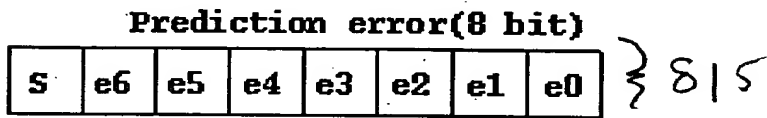
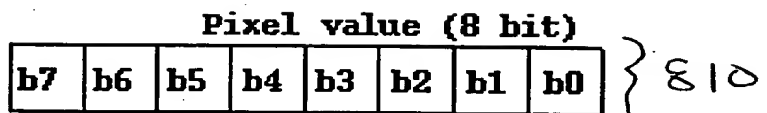
FIG. 7

805
810
815
820
825
830
835
840
845
850
855
860
865
870
875
880
885
890
895
900
905
910
915
920
925
930
935
940
945
950
955
960
965
970
975
980
985
990
995

Prediction,
error computation,
mapping

SPLIT Prediction Error
into More and
Less Significant bits
based on L Value

Variable length
encoding
(entropy coding)

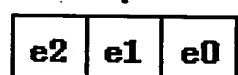


L=3bits



Variable
length
code (token)

840



Fixed length
token (FLT)

845

FIG. 8

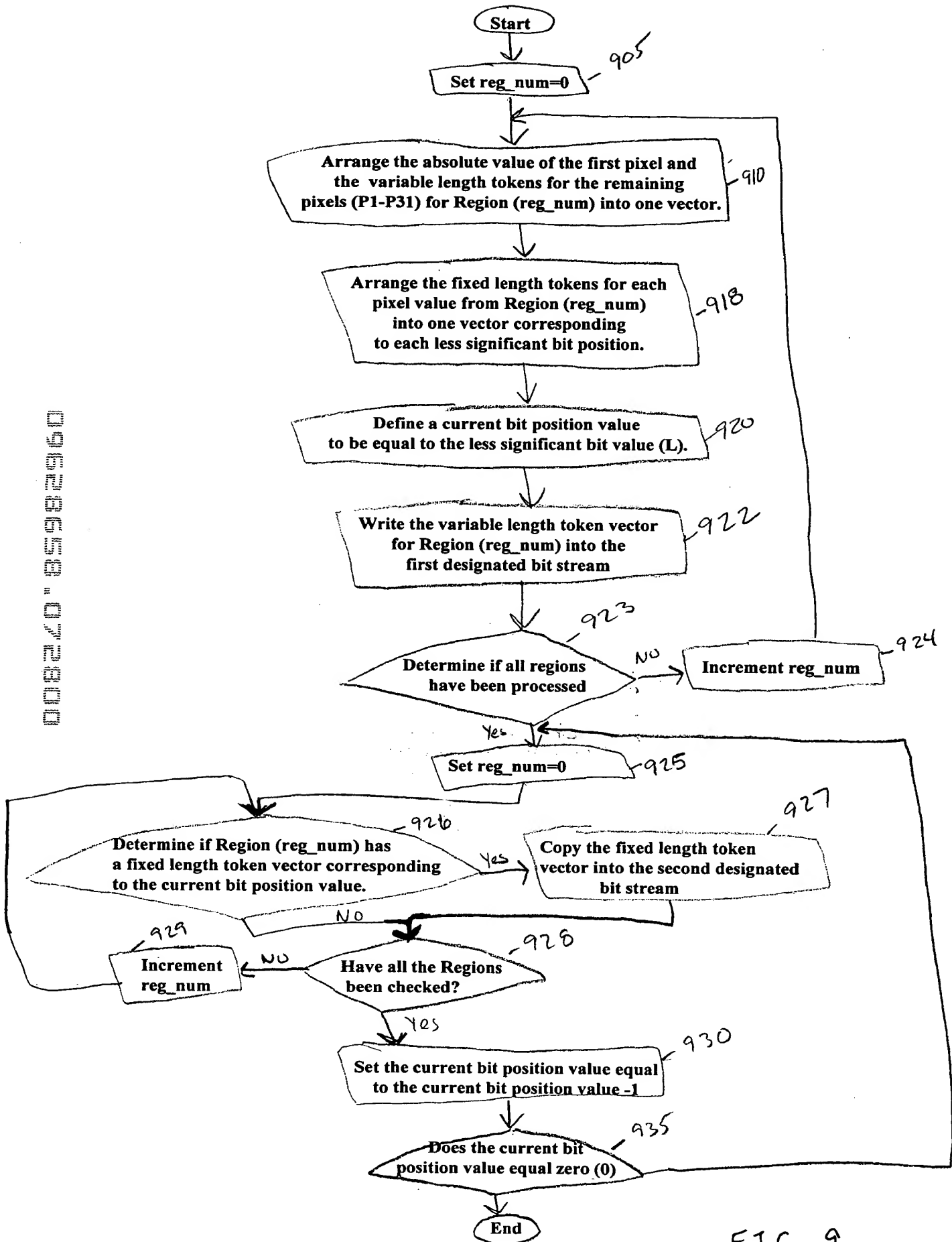
[illegible]

FIG. 9

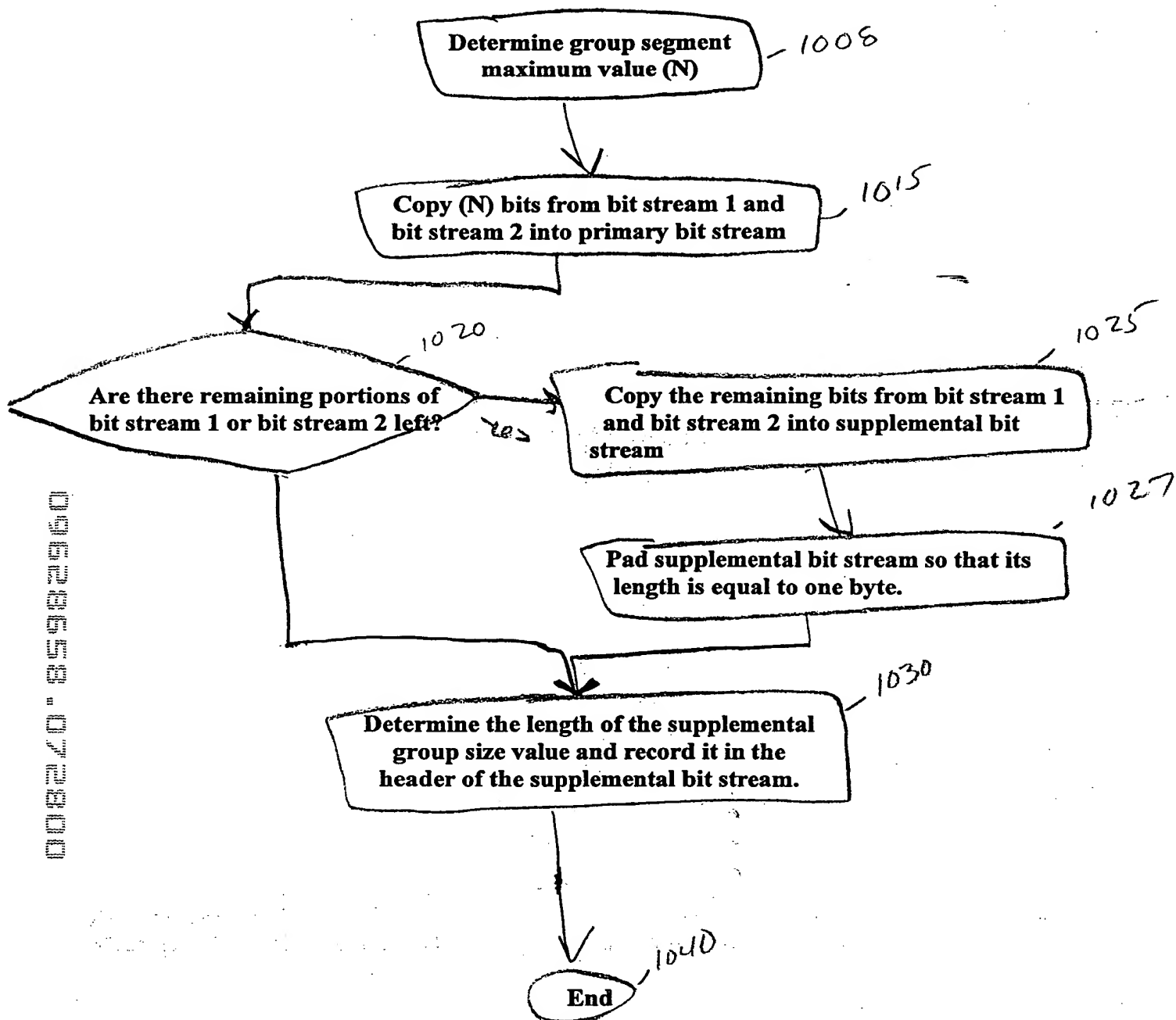


FIG. 10

Progressive Lossless Compression

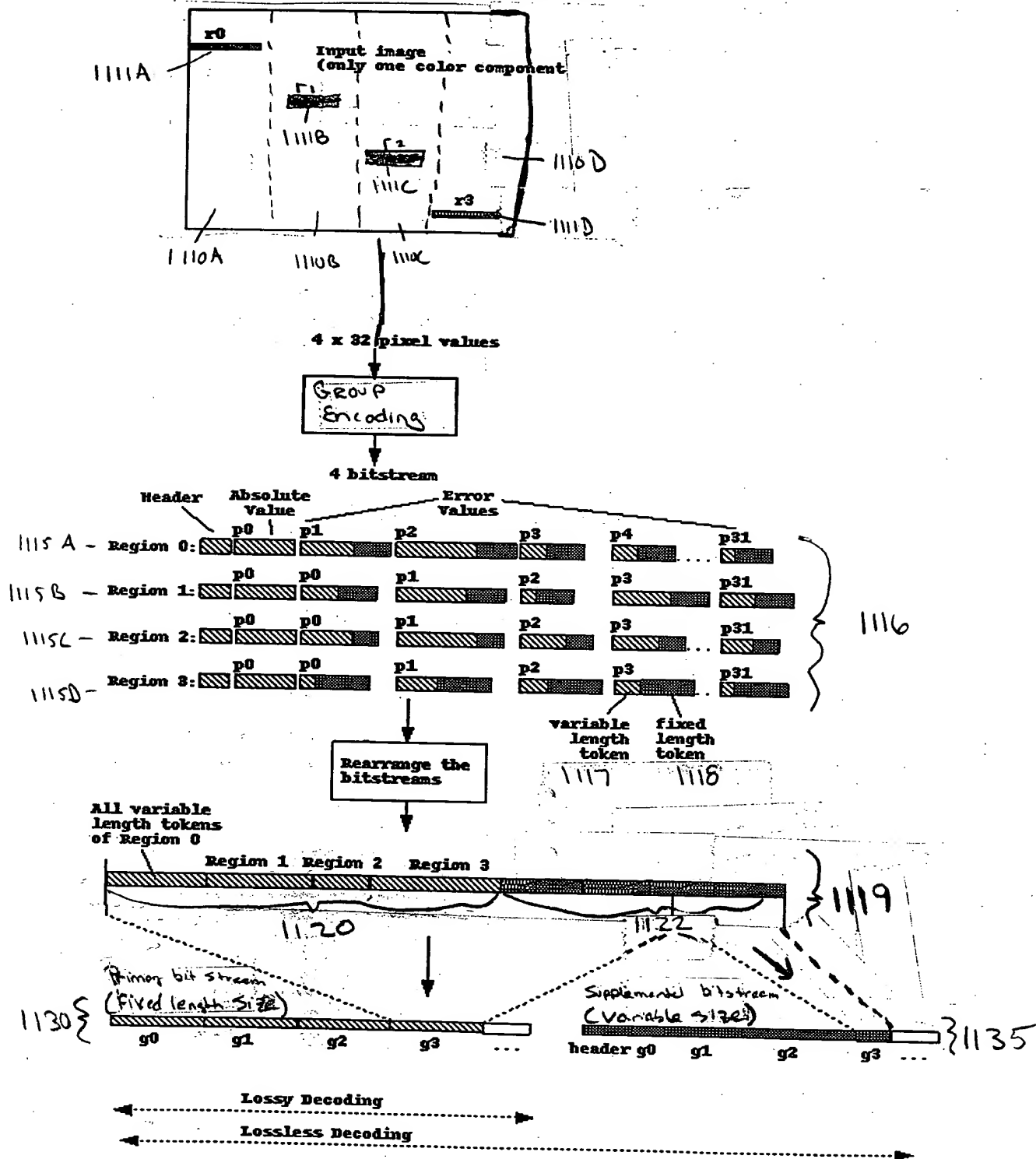


FIG 11

008240" 85982960

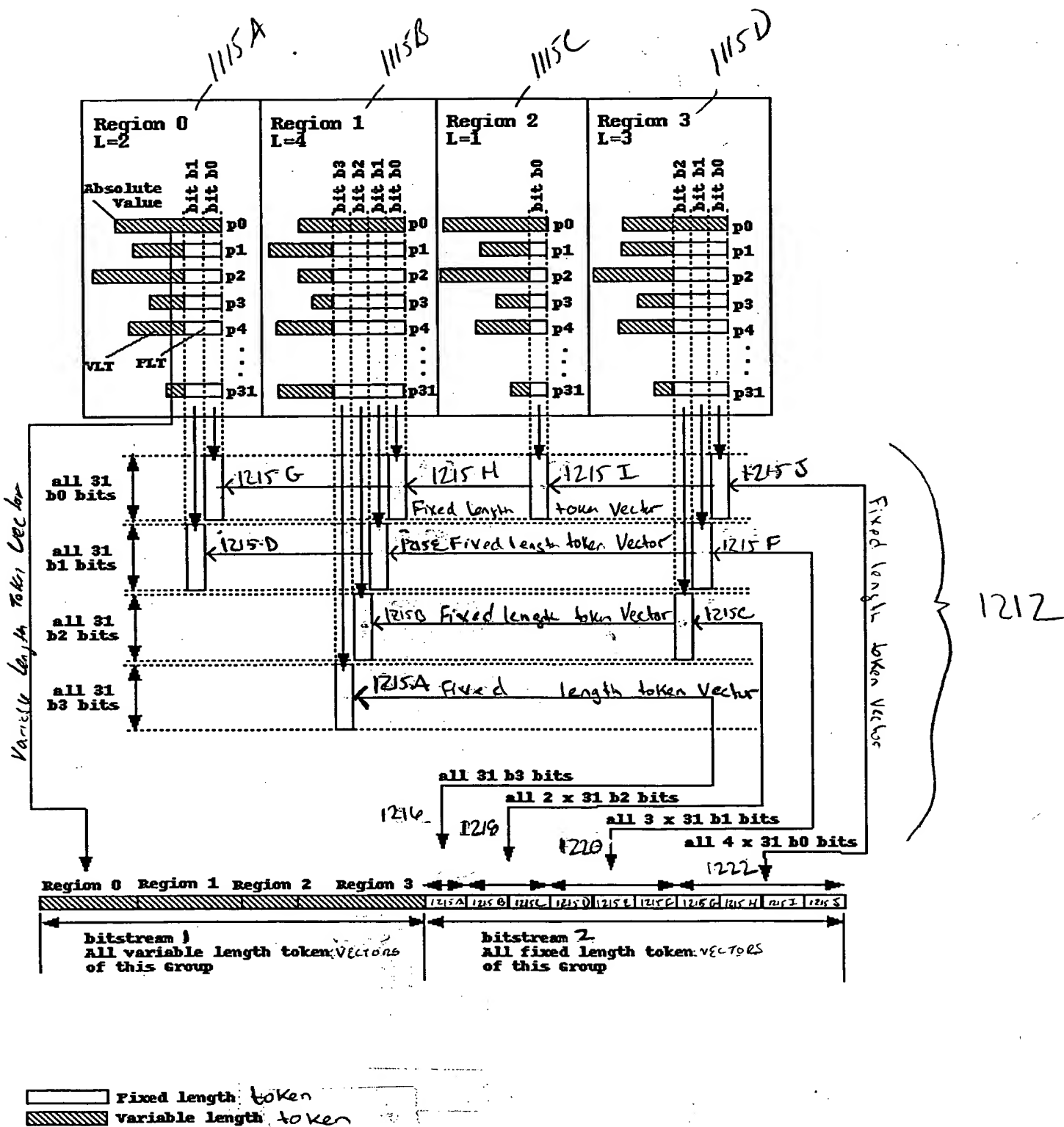


FIG. 12